

REMARKS

Reconsideration and allowance of the subject application are respectfully requested. Claims 13-23 remain pending, claims 13 and 19 being independent. In this Reply, Applicants have amended claims 13 and 19.

Prior Art Rejection

Claims 13-23 stand rejected under 35 U.S.C. 103 as allegedly being unpatentable over Nonaka et al. (JP 8-189667A) in view of Boku et al. (JP 2001-241693A). This rejection, insofar as it pertains the presently dependent claims, is respectfully traversed.

Independent claim 13 is directed to a humidity control system having a refrigerant circuit. The refrigerant circuit recited in claim 13 includes, *inter alia*, a compressor, a first adsorber, an expansion valve, and a second adsorber. Each of the first adsorber and the second adsorber is formed by an adsorption heat exchanger having refrigerant flowing therethrough and having an adsorbent carried on the outer surface for adsorbing or desorbing moisture, thereby controlling the amount of humidity of air. As amended, claim 13 further specifies that each of the adsorption heat exchanger at the first adsorber and the adsorption heat exchanger of the second adsorber has a plurality of fins and heat transfer pipes passing through the fins, the adsorbent being carried on outer surfaces of such fins.

Thus, the humidity control system now recited in claim 13 is configured such that heat transfer pipes, into which a refrigerant flows, pass through the fins of the adsorption heat exchangers, and the adsorbent is carried on the outer surfaces of such fins. This configuration allows transfer of heat of the refrigerant passing through the heat transfer pipes to the entire regions of such fins. As a result, the temperature of the adsorbent carried on the outer surfaces of fins can increase. Furthermore, since the adsorbent is carried on the outer surfaces of the fins, contact area between air and the adsorbent increases, thereby improving the efficiency of thermal regeneration of the adsorbent.

The primary reference, Nonaka, discloses a dehumidifying-humidifying device in which an adsorption unit 4 includes refrigerant pipes 21 passing through mesh containers 22 containing

adsorbent 23 therein. See e.g., Fig. 3, paragraph [0029]. The adsorption unit 4 does not utilize an arrangement of fins. This arrangement provides limited contact area between air and the adsorbent 23, thus having lower efficiency of thermal regeneration of the adsorbent as compared to the claimed arrangement.

The Examiner's reliance on the secondary reference, Boku, fails to make up for these deficiencies of Nonaka. Consequently, Applicants respectfully submit that the asserted combination of Nonaka and Boku (assuming these references may be combined, which Applicants do not admit) fails to establish *prima facie* obviousness of claim 13 or any claim depending therefrom.

Furthermore, Applicants respectfully submit that independent claim 19 and claims depending therefrom define over the asserted combination of Nonaka and Boku at least based on similar reasoning to that set forth above with respect to independent claim 13.

In view of the above, Applicants respectfully request reconsideration and withdrawal of the Examiner's rejection under 35 U.S.C. § 103.

Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

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